

# VIDEO & INFORMATION SERVICE

	Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
		Barry Diller	TV Programming			interactive home shopping network.
14	12/92	NBC A.C. Nielsen Gannett United Artist	Broadcasting TV Ratings Media Studio	Joint Investment	Video	Backers of Interactive Network Inc. that has developed a laptop display unit that receives data from remote computers using an unused portion of the radio spectrum. Initial market is for video games.
15		Cox TCI Teleport Continental Cable Comcast	CATV CATV CAP CATV CATV, Cellular	Purchase	Video/Data	Joint purchase of major CAP from Merrill Lynch by CATV interests. TCI and Cox own 30% each, Comcast and Continental own 20% each. Teleport has stated it will invest in markets where its owners operate.
16	12/92	USA Video Digital Equipment	Technology Corp. Computers	Strategic Alliance	Video	Implement and deploy by 3qtr '93 USA Video's Store and Forward Vision Video-on-Demand technology over fiber or coax
17	3/93	Southwestern Bell Hauser Comm.	RBOC CATV	Purchase	Video	SWB purchased two CATV systems in Virginia from Hauser Com. in Arlington VA and Montgomery Co. VA. (Bell Atlantic territory)
18		GTE Vantage Discovery Channel Philips Electronics	Venture Comp. Programmer Consum Electronics	Joint Test	Interactive Video	Objective is to test interactive video using existing programming, embedding signals in the program that, when accessed, activate multimedia info resident on a consumer compact disk.
19	1/93	AT&T Compression Labs	Communications Manufacturer	Joint Development	Video	Jointly developed a computerized video receiver that will work with ADSL to receive compressed video in the home.
20	1/93	NYNEX Philips Electronics	RBOC Consumer Elect	Joint Development	Video Phone	Jointly develop ability to deliver easy to access information services from screen based phones for delivery of text & voice.
21	3/93	The IT Network Booth Comm.	Interactive TV CATV	Joint Test	Interactive Video	Completed testing of an interactive educational video system in Birmingham, Michigan. Enables parents to review assignments, confer with school officials over a cable network.
22	3/93	QVC Network Inc. Paramount Com. Norman Pearlstine	Home Shopping Movie Studio Former Editor	Joint Venture	Interactive Video	Three principals have joined to form Friday Holding which will concentrate on print media and interactive video. Pearlstine is a former executive editor of The Wall Street Journal
23	6/93	AT&T Viscom International	Communications CATV/Entertain	Joint Trial	Interactive Video	Conduct joint test of interactive TV in Castro Valley, CA. AT&T will provide programs & network server
24	5/93	AT&T Eastman Kodak	Communications Imaging	Alliance	Video	Develop applications for a telephone that displays full-color still photos over ordinary telephone lines.

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25	6/93	AT&T Sega of America	Communications Video Games	Collaboration	Interactive Video	Companies will introduce a low-cost communications platform that will permit multi-person video game play over phone lines.
26	5/93	Spectradyn EDS	Hotel Movies Computer Services	Alliance	Video-on-Demand	Use EDS' network and Compression Labs system to provide VOD to hotels, hospitals, apartments, military bases and schools.
27	5/93	Bell Atlantic Intel Corporation	RBOC Semiconductor	Joint Venture	Video Conferencing	Development of computer boards to make desktop video conferencing products.
28	5/93	US West Time Warner	RBOC CATV/Entertainment	Investment	Interactive Video	US West will invest \$2.5 billion for a 25.5% stake in TW's entertainment division.
29		GTE Telops Univ. No. Carolina MCNC BellSouth	LEC University Super Computer RBOC	Joint Test	Imaging	Joint trial of medical imaging and high speed distributed networking via a fiber optic network supplying 2 GHz bandwidth. Trial partnership has been dubbed VistaNet.
30	5/93	Picture Tel Toshiba	Manufacturing Computers	Joint Tech	Video	Joint technology agreement that could lead to laptop computers used as picture phones.
31	8/93	Bell Atlantic CellularVision - NY	RBOC Wireless Cable	Alliance	Video	Alliance to use Cellular Visions 28 GHz technology to deliver wireless cable to New York City.
32	6/93	TCI Time Warner	CATV CATV	Alliance	Video	They will cooperate on standards to the extent that whatever one company develops will be compatible with the other's system.
33	4/93	TCI Time Warner Sega Enterprises	CATV CATV Video Games	Alliance	Interact Video	The three companies will develop system to allow interactive video games between individuals in different locations.
34	6/93	NYNEX Liberty Cable Time Warner	RBOC Wireless Cable CATV	Joint Test	Video Dialtone	Three companies will jointly test NYNEX's fiber optic facilities for the delivery of CATV programming to 2500 Manhattan residents.
35	11/93	NYNEX Viacom	RBOC CATV	Investment	Video	NYNEX will invest up to \$1.2 B in Viacom to help in its bid for Paramount. If that fails investment will be \$500 million
36	11/93	Blockbuster Viacom	Video Rental CATV	Investment	Video	Blockbuster will invest \$600 Million in Viacom to help in its bid for Paramount. If that fails investment will be \$300 M.
38	10/93	BellSouth	RBOC	Investment	Video	Bell South purchased 22.5% of Prime, the 25th largest MSO

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		Prime Management Community Cable	CATV CATV			based in Austin, TX., and will participate with Prime in the recapitalization of Community, ranked 14th, based in Las Vegas.
39	11/93	EON Corp Hewlett-Packard	Interactive TV Computer	Investment	Video	HP purchased an undisclosed equity stake in EON (formerly TV Answer). EON uses HP developed set-top boxes.
40	11/93	Interactive Network Sony Pictures	Interactive TV Entertainment	Joint Develop	Video	Joint development of interactive-ready TV programming for use in Interactive's satellite based interactive TV.
41	12/93	Intel Corporation General Instrument	Semiconductor Manufacturing	Strategic Alliance	Video	Cooperate in development of technology to allow delivery of computer data and software to home computers via CATV system.
42	6/93	TCI Interactive Network	CATV Interactive TV	Investment	Interactive TV	TCI will invest \$10 M to keep Interactive afloat. TCI will own 22% with option to purchase up to 33%
43	11/93	Intel Corporation VTEL Corporation	Semiconductors Video conference	Joint Development	Videoconferencing	Develop a compatible family of video conferencing equipment. Intel provides PC video products, VTEL the license to software.
44	11/93	Adelphia Cablevision Comcast Cable Monmouth Cable	CATV CATV CATV	Network Link	CATV	Plans to link four cable systems owned by the three with fiber allowing sharing of programming. They serve 300 K homes.
46	10/93	QVC Cox Communications Advance Publication	Video Programs CATV/Media Media	Investment	Programming	Cox and Advance will invest \$500 M each in QVC contingent on a successful bid for Paramount.
47	11/93	BellSouth QVC	RBOC Entertainment	Investment	Video	BellSouth will invest up to \$1.5 B in QVC if the bid for Paramount is successful and form a video joint venture.
48	12/93	Jones Intercable BCE Telecom Jones Lightwave	CATV Communications CAP	Investment	Video	BCE Telecom (Sub of Bell Canada) will invest \$275 M for 30% of Jones Cable and \$25 M for 50% of Jones Lightwave.
49	1/94	GTE Telops AT&T	LEC Communications	Market Trial	Video-on-Demand	Market trial of interactive video using AT&T Bell Labs developed video server to 1000 in Manassas VA over a hybrid network.
50	1/94	Pac Tel AT&T	RBOC Communications	Market Trial	Video-on-Demand	Market trial of interactive video using AT&T Bell Labs developed video server to 1000 in Milpitas, CA over a hybrid network.
51	1/94	Time Warner Spiegel	CATV/Entertain Retailer	Joint Venture	Home Shopping	Joint venture for 24 hour shopping channel. Start in four markets, then nationwide. Recruiting other national retailers.

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52	1/94	Microsoft Sega	Software Video Games	Alliance	Video Games	Microsoft will develop the operating system for next generation Sega game machine. May position it for the set-top.
53	2/94	Liberty Media AT&T Allen & Co	Programming Communications Investment Bank	Joint Venture	Sport Channel	Classic Sport Channel that will be dedicated to past sports events, documentaries, movies and talk shows. Also has potential in having sport memorabilia and interactive games.
54	3/94	TCI Liberty Media	CATV Programming	Merger	CATV	Liberty Media and TCI after merging. Liberty Media was spun off from TCI in 1990. Will continue despite TCI/Bell Atlantic breakup.
55	3/94	Sprint Silicon Graphics	Long Distance Computer	Joint Develop	Video	Sprint will connect Silicon Graphic studio production computers using either 1.5 mbps WAN service or 45 mbps ATM service.
56	2/94	Viacom Blockbuster Paramount	CATV/Program Video Distribution Studio	Merger	Video	Blockbuster and Viacom merged then purchased Paramount Studios in a long battle with QVC. Resulting company will be vertically integrated in video production, packaging and distribution.
57	1/94	Bell Atlantic Oracle	RBOC Software	Joint Development	Intracative Video	Jointly develop and market interactive multimedia software and services. Use Oracle's software on Stargazer platform.
58	6/93	HBO Crystal Dynamics	Entertainment Video Games	Investment	Multimedia	HBO purchased a 20% interest in Crystal Dynamics, video game start up company founded by a former head of 20th Century Fox
59	3/93	Apple Computer Bellcore Coming Bieber-Takt Eastman Kodak Kaleida Labs N.A. Philips SWB & US WEST Sutter Bay Assoc. Tandem Computer	Computer LEC Research Fiber Optics Venture Cap Conglomerate Computer Electronics RBOC CATV Computer	First Cities - Joint Venture	Multimedia	First Cities will test interactive multimedia services to residences including multimedia teleconferencing, interactive games, entertainment on demand, multimedia customized information and distance learning. Between 3000 and 10,000 homes will be involved in trials in 1993 and 1994 and expand up to 200,000 homes.
60	1/92	Apple Computer IBM	Computer Computer	Joint Venture	Multimedia	Joint venture called Kaleida Labs Inc. to develop hardware and software for multimedia applications
61	1/93	AT&T Matsushita Electric Time Warner Inc. Kleiner Perkins Electronic Arts	Communications Consumer Electronics Entertainment Venture Capital Software	Joint Venture	Multimedia	Joint investment in 3DO, developer of a CD format for delivery of multimedia programming. The device will manage TV and cable channels, play games, music, movies, edit video tapes, do shopping & have educational applications. Matsushita and AT&T to offer manufacturing. Time-Warner to offer programming.

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62	6/93	Time-Warner Silicon Graphics	CATV/Entertain Computer	Partnership	Multimedia	Use Silicon's video servers to store TW video libraries to deliver VOD. Also use Silicon's chip in converter box TW is buying
63	4/93	General Instrument Microsoft Intel	Broadband Vendor Software Semiconductors	Joint Venture	Multimedia	Developing a converter box based on the Intel 386 microprocessor, and a variation of Windows software to show a menu controlled by remote control. Target retail price: \$300.
64	6/93	Kaleida Labs Inc. Motorola Inc. Scientific Atlanta	Multimedia Wireless Vend Converter Manuf	Joint Development	Multimedia	Develop the software and hardware for delivering interactive and multimedia services to homes through CATV networks.
65	5/93	US West Oracle Corporations	RBOC Software	Alliance	Multimedia	Develop a hardware independent software platform to support a wide range of voice, text, and video services.
66	5/93	IBM Blockbuster Enter.	Computer Entertainment	Joint Venture	Multimedia	Develop & operate digital content databases, interface to broadband networks, audio & video servers, & content production.
67	6/93	Time Warner Inc. Apple Computer	CATV/Entertain Computer	Joint Marketing	Multimedia	Apple will retail a full line of CD-ROM software TW developed and they will jointly develop a world-wide marketing program.
68	8/93	AT&T Sierra Network	Communications Interactive Game	Investment	Multimedia	AT&T purchased a 20% interest in the on-line computer game and entertainment provider.
69	10/93	MCI Intel	Long Distance Semiconductors	Joint Development	Multimedia	Intel and MCI will work together to create standards for a national computer network & merging computers with telephones.
70	9/93	SWB Online Resources	RBOC Manufacturer	Co-Marketing	Screen Phone	OR&C will market its screen phone transaction system jointly with SWB's CLASS services to banks & financial institutions.
71	3/94	Oracle Reliance Comm/Tec	Software Manufacturer	Cooperative Ag.	Multimedia	Will integrate Oracle's media server technology into Reliance's transmission systems.
72	3/94	Microsoft Nippon Tel & Telegraph	Software Communications	Joint Development	Multimedia	Develop services to allow access of multimedia information over a communications network.
73	9/93	ALL TEL TDS Healthcare Systems	LEC Info Services	Purchase	Info Services	ALL TEL agreed to acquire TDS Healthcare Systems Corp., which will expand its information services offering into health care.
74	9/93	Cincinnati Bell Wells Marketing	LEC Info Processing	Purchase	Info Services	Cincinnati Bell purchased Wells (80% owned by Amnet), a processor of information and related services for credit cards

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75	US WEST France Telecom	RBOC Communications	Joint Venture	Info Services	Jointly operate videotex gateway in Omaha, Seattle & Minneapolis
76	11/93 IBM BellSouth	Computer RBOC	Joint Test	Info Services	Test of information services in a group of schools and offices in Tennessee
77	Prodigy Service Co. Jerrold Communications	ESP Manufacturer	Joint Development	Info Services	Produced a converter box that will allow transmission of Prodigy over coax to a computer or TV
78	Pac Bell KRON-TV	LEC TV Station	Partnership	Info Services	Producing a TV based community news and information service with an eye toward interactive video
79	12/92 AT&T Bell Labs Springer-Verlag Univ. Calif. - SF	Research Publisher University	Trial	Info Service	Collaborative effort to link PCs and workstations to data base of journals to search, print & read existing articles, including photographs, and alert user about new articles from 30 journals
80	BellSouth Dow Jones	RBOC News Service	Strategic Alliance	Info Services	Cellular customers will query their voice mail that will store messages of interest to customer. Joint Planning for other offers
81	Ameritech Publish Audio Services Inc.	Yellow Pages Info Services	Joint Venture	Info Services	Expand on current relationship where Audio Services provided information for Ameritech's Touch Four audiotex service.
82	NYNEX Dow Jones	RBOC News Service	Joint Venture	Info Services	Develop an information service offer to provide custom tailored business summaries to end users.
83	12/92 Apple Computer America Online	Computer ESP	License Agreement	Info Services	America Online to modify its software to work on Apple Computers. Apple to use software to run own on-line services.
84	1/93 Bell Atlantic US Order	RBOC Air Transport	Joint Venture	Info Services	Provide telephone customers in Washington DC ability to pay bills, bank, buy groceries and catalog shopping via the phone.
85	1/88 Sears IBM	Retailer Computers	Joint Venture	Info Services	Co-owners of Prodigy, a computer based info services company providing home shopping, data bases, etc. to 1 million customers
86	Prodigy Liberty Cable	Info Services CATV	Joint Development	Info Services	Companies are jointly exploring ways of using Prodigy's services on a TV set instead of a computer.
87	12/92 MFS Texas Instruments	CAP Semiconductor	Alliance	Smart Highway	Joint R&D on next generation automatic vehicle I.D. and electronic toll and traffic management systems.
88	5/93 NYNEX Newsday Inc.	RBOC Publisher	Joint Test	Info Services	Test customized packages of news, local sports scores, movie and restaurant listings to 1500 participants on Long Island.

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89	8/93 Prodigy Times Mirror Co.	Info Services Publishing	Joint Provision	Info Services	Prodigy will be platform for electronic delivery of Times Mirror newspapers. Los Angeles Times is flagship paper.
90	7/93 Prodigy Cox Newspapers	Info Services Publishing	Joint Development	Info Services	They will jointly develop a "turnkey" service platform for use in providing on-line versions of newspapers.
91	America Online Tribune Company Knight-Ridder, Inc.	Info Services Publishing Publishing	Joint Provision	Info Services	America Online will have daily newspapers available (Chicago Tribune and San Jose Mercury News). May expand to other papers owned by the publishers.
92	America Online Walt Disney	Info Services Entertainment	Joint Provision	Info Services	America Online will provide access to Disney Adventures magazine for children, incl. full text and comm. with editors.
93	6/93 BellSouth Cox Enterprises Landmark Comm.	RBOC Publishing Newspaper	Joint Venture	Info Services	Develop and market a family of new electronic information services including newspaper classifieds and yellow pages.
94	9/93 Sprint Kinko Service Corp	Communications Copy Centers	Joint Development	Video Conferencing	Kinko will provide video conferencing facilities for customers via Sprint. Kinko moving toward "branch office" concept
95	11/93 Cox Cable Prodigy	CATV Info Services	Test	Info Service	Prodigy will begin test of delivering service over CATV facilities approx. 50 times faster than over phone lines.
96	11/93 Apple Computer EDS Redgate Comm.	Computer Software Marketing Firm	Test	Info Services	Apple will distribute 21 catalogs in CD-ROM format to 30,000 customers in a shop at home test. EDS will provide switching from the single 800 number to the catalog companies.
97	11/93 US WEST France Telecom EDS	RBOC International LEC Software	Joint Venture	Home Banking	Form new company (Interactive Transaction Partners) to sell services to financial institutions, retailers & major billers which will market them under private labels.
98	12/93 CompuServe Continental Cable	Info Services CATV	Test	Info Services	Test delivery of CompuServe over CATV system in Exeter, NH. Linked via Zenith Home Works cable modem.
99	11/93 McCaw Cellular Lotus Development	Cellular Software	Joint Provision	EMail	Will provide Lotus electronic-mail service to cellular customers using Cellular Digital Packet Data technology
100	8/93 Info. America Paramount Comm.	Info Services Entertainment	Purchase	Info Services	Info America will purchase three units of Paramount in exchange for 49% ownership
101	6/93 US Order	Info Services	Joint Development	Info Services	NTN will develop games and interactive programs for use on US

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		NTN Communications	Interactive TV			Order's ScanFone. Expect interactive football, horse racing.
102	12/93	Ameritech GE	RBOC Info Services	Investment	Info Services	GE to give the assets of its GE Info Systems Div. for cash. Ameritech will receive a 30% equity interest in the company.
103	12/93	NYNEX Prodigy	RBOC Info Services	Joint Development	Yellow Pages	Companies will cooperate in developing Yellow page like ads on Prodigy. Will include daily ad update capability & color.
104	1/94	Oracle Washington Post	Software Media	Alliance	Info Services	Develop and market multimedia software and services including integrated text, audio and video for use on PCs & advanced TVs.
105	1/94	Pac Tel Times Mirror	RBOC Media	Alliance	Info Services	The two companies will jointly develop electronic information and shopping service.

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## WIRELESS

	Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
1		GTE Oki AT&T	Telecommunications CPE Vendor Telecommunications	Joint Test	PCS	Tampa Florida market trial of PCS and Telepoint consisting of 1500 customers using cellular frequency
2	9/91	COMCAST Motorola General Instruments	CATV/Cellular Wireless Vendor Broadband Vendor	Joint Test	PCS	PCS Trial in Philadelphia using Comcast cable, cellular and CAP subsidiary facilities with Motorola and General Instrument equipment to join voice with Fiber/coaxial cable system.
3		GTE Northern Telecom	Telecommunications Switch Vendor	Joint Test	PCS	Joint test of wireless ContraNet in RTP and wireless PBX in Nashville TN
4	11/92	AT&T NEC Matsushita Electronics Toshiba	Telecommunications Semiconductor Electronics Electronics	License Agreement	PCS	AT&T is licensing the manufacture of the "Hobbit" chip developed by Bell Labs and used in the manufacture of an portable electronic note pad/communicator.
5	11/92	AT&T Eo Computer Marubeni Corp. Matsushita Electronics Olivetti	Telecommunications Computer Trading Co. Electronics	Joint Venture	PCS	AT&T will sell in its Phone Centers Eo's small computer/communicators based on Go Corps PenPoint operating system. (The other three all have equity investment in EO)
6		Inmarsat Nokia Mobile Phone	Satellite CPE Vendor	Joint Venture	PCS	Satellite based mobile telephone system
7		Qualcomm Inc. Telesis Labs	Wireless Vendor Research	Joint Test	PCS	Test of Qualcomm's narrowband CDMA in San Diego using the 1850 -1990 MHz band frequency
8	8/93	Cox Enterprises Northern Telecom	CATV Switch Vendor	Joint Development	PCS	Exploring the delivery of PCS over CATV networks. Goal is to develop a standard product using unique architecture of CATV.
9		Qualcomm Inc. Amer Personal Com. Motorola	Wireless Vendor PCS Exp. License Wireless Vendor	Joint Test	PCS	Joint test of Qualcomm's narrowband CDMA and APC's FAST system in Washington DC. Will also test Motorola's CDMA & TDMA systems
10		TCI McCaw	CATV Cellular	Joint Test	PCS	200 phone test in Ashland Oregon using McCaw's microcells that are joined by TCI fiber
11		Bell Atlantic Mobile Motorola	Cellular Wireless Vendor	Joint Test	PCS	Test in Pittsburgh using existing wireline and cellular networks of Bell Atlantic with Motorola CPE and NAMPS microcell sites

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12	US West NewVector Motorola	Cellular Wireless Vendor	Joint Test	PCS	Test in Denver using US West wireline and cellular systems and Motorola handsets and NAMPS microcells
13	2/93 General Magic Apple Computer AT&T Matsushita Motorola Inc. Philips Elec. NV Sony Corp. Fujitsu Ltd. Nippon Tel & Telegraph	R&D Computer Communications Electronics Wireless Vendor Electronics Mfg./Entertainment Manufacturing Communications	Joint Venture	PCS	General Magic is a joint venture established to develop a wireless communicator operating system standard. The operating system will allow any devices operating it to communicate. It is envisioned to be used in either a wireline or wireless communications system to access data, send E-Mail, faxes, or act as a beeper, appointment book, note-taker or cellular phone.
14	6/93 Hauser Comm. Providence Journal Viacom International 13 other partners	CATV/RBOC Cellular CATV/Entertainment Cellular/Others	Joint Research	PCS	Propose MIT's Lincoln Lab be the technical manager of the national trial later this year. Trials will focus on health-care providers, educational institutions, senior citizens, job retraining facilities, and cellular customers.
15	7/93 MCI Amer Personal Comm. TeleCable Inc.	Long Distance PCS CATV	Joint Trial	PCS	Joint trial of APC's Washington system and a joint test system to be built by MCI and TeleCable in Dallas. Test to use Qualcomm CDMA technology.
16	12/93 Comcast Cable Continental Cable Cox Cable TCI Time Warner	CATV CATV CATV CATV CATV	Joint Venture	PCS	Venture to offer PCS and other "niche" telecommunications services in the metro areas covered by the CATV companies. The national venture will provide marketing, operational, and support services to separately incorporated local joint ventures.
17	BellSouth Motorola	LEC Manufacturing	Joint Test	PCS	Joint test in Houston of Motorola Microtac™ handset with combined paging capability
18	8/93 MCI ALLTEL Services Time Mirror Cable Jones Lightwave Teleport Denver Iowa Network Services Landmark Comm.	Long Distance LEC CATV CAP CAP LEC Consortia LEC Consortia	Consortium	PCS	MCI signed agreements with 150 companies to provide a nationwide PCS consortium to serve 50% of the US. They will apply for a national license if one is permitted by FCC rules.

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19 12/93	EO Inc. Pensoft Corp.	Computer Software	Purchase	PCS	EO Inc. will purchase Pensoft, maker of the operating system used in EO personal communicators.
20 11/93	MCI Northern Telecom Ericsson GE Mobile Nokia Telular Corp. MIT Lincoln Labs	Long Distance Switch Vendor Manufacturing Manufacturing Research	Joint Development	PCS	Development of equipment to enable PCS to be deployed more quickly. Will make system capable with European GSM standards as well as US standards by inserting a smart card allowing device to be used in Europe.
21 10/93	Nextel Questar Telecom CenCall Comm.	SMR Private Carrier SMR	Purchase	SMR	Nextel is buying Questar licenses, and buying 37% interest in CenCall in exchange for Nextel licenses in several states. This will up Nextel's coverage to 134 million POPs.
22 11/93	Nextel Motorola	SMR Manufacturing	Purchase	SMR	Nextel is exchanging \$1.8 B in stock (20%) for 2500 dispatch radio licenses. Provide presence in 45 of top 50 markets.
23 9/93	Stratus Computer AccessLine Tech.	Computer Software	Strategic Alliance	PCS	ATI's next "single number" software release will be based on Strat Com's IN applications platform.
24 11/93	MCI AllTel Mobile Comm.	Long Distance Cellular	Joint Test	PCS	Conducting a joint PCS trial of 900 Charlotte, NC residents. The consumer trial is similar to the Tele-Go™ trial in Tampa.
25 11/93	Time Warner Continental Cable Cablevision Boston	CATV CATV CATV	Joint Test	PCS	Using Omnipoint 1.8 GHz PCS system to demonstrate ability to deliver PCS over interconnected CATV systems completely bypassing LEC network. Test being run in Massachusetts.
26 11/92	AT&T McCaw	Telecommunications Investment Cellular		Cellular	AT&T purchased 1/3 of McCaw with options to buy controlling interest. AT&T is interested in direct access to end user.
27	Bell South RAM Broadcasting DEC	RBOC Packet Radio Computer	Joint Venture	Mobile Data	Wireless data network joint venture between the companies
28	Telular Group L.P. Columbia Cellular	Manufacturer	Joint Venture	Cellular	Columbia is financially backing Telular technology for fixed provision of PBX, key systems and computers via cellular RF.

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29	10/92	Bell Atlantic Mobile Westinghouse	Cellular Manufacturer	Resale	Mobile Data	Westinghouse will resell BAMS cellular packet data service to fleet managers, in Baltimore using technology developed by CDI
30		NYNEX Rochester Tel	RBOC LEC	Joint Venture	Cellular	Two firms will joint upstate NY cellular properties to form a "cellular super system". Operated as a 50/50 partnership
31		Motorola IBM	Wireless Vendor Computer	Joint Venture	Mobile Data	Jointly operate the "Ardis" network for provision of wireless data
32	10/92	McCaw IBM	Cellular Computer	Joint Development	Mobile Data	Developed a mobile packet switched data product used by McCaw called Cellular Digital Packet Data
33	1/93	GTE Mobile Com. Qualcomm Inc.	Cellular Manufacturer	Joint Test	CDMA	Joint 30 day test of Qualcomm's CDMA technology in Tampa over Mobile Com's cellular network.
34	2/93	GTE Mobilnet Mobility Canada 13 B-side Carriers	Cellular Cellular Cellular	Service Brand	Cellular	Carriers banded together to provide MobiLink, a cellular service brand established to guarantee consistent levels of quality across US & Canada. Sets stage for seamless cellular network.
35	2/93	NYNEX Qualcomm Inc.	RBOC Wireless Vendor	Joint Test	Cellular	Qualcomm and NYNEX announced a test of Qualcomm's CDMA cellular technology
36	2/93	RAM Mobile Data Intel Corporation Ericsson GE.	Cellular Data Semiconductors Switch Vendor	Joint Marketing	Cellular	Joint market a system that gives personal computer users connections to RAM's (49% owned by BellSouth) wireless data network using Ericsson Mobidem modem.
37	5/93	AT&T Spectrum Info Tech	Communications Cellular Data	Investment	Cellular Data	AT&T will license Spectrum's cellular data patents use in AT&T's Safari laptop wireless modem & may invest up to \$10 million.
38	5/93	GTE Mobile Com. Ameritech Mobile Bell Atlantic Mobile McCaw Cellular NYNEX Mobile PacTel Cellular SW Bell Mobile	Cellular Cellular Cellular Cellular Cellular Cellular Cellular	Joint Research	Mobile Data	Cooperative research to develop a new wireless data transmission technology. The technology will use frequency-hopping techniques for packet delivery of digital data over cellular channels. Project to be co-managed by GTE and McCaw. The others will provide funding only.
39	12/92	Horizon Cellular Tel	Cellular	Purchase	Cellular	Horizon is purchasing Danbury. Horizon focusing on RSAs

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	Danbury Cellular Tel	Cellular			linking metropolitan areas. 15% owned by McCaw
40	1/93 Fleet Call Dispatch Comm.	SMR SMR	Purchase	Cellular	Fleet Call is buying Dispatch (number 2 & 3 specialized mobile radio carriers respectively) to be complete 2nd qtr. 1993
41	1/93 GTE Mobilnet General Cellular	Cellular Cellular	Purchase	Cellular	GTE agreed to purchase controlling interest in the Burlington, NC MSA.
42	9/93 Advance Mobile Com. Dial Page Inc. Transit Com. Corp.	SMR SMR SMR	Merger	Cellular	The three companies are merging the SMR business. They cover approximately 20 million POPs in the Southeast.
43	1/93 GTE Mobilnet Inc. General Cellular	Cellular Cellular	Purchase	Cellular	GTE purchased General Cellular's interest in Burlington N.C. to obtain operating control
44	Comcast Metromedia TDS Century Telephone	Cellular/CATV Cellular LEC LEC/Cellular	Merger  Purchase	Cellular  Cellular/LEC	Comcast merged its cellular operations with those of Metromedia. Comcast will now provide both cellular and CATV to Philadelphia TDS sold its Alexandria LA cellular properties to Century. Century sold TDS LEC properties in Stonewall and Wyandotte OK
45	9/93 NYNEX Contel Cellular	RBOC Cellular	Purchase	Cellular	NYNEX Mobile Communications Company will purchase the northeastern properties of Contel Cellular.
46	4/93 Nextel American Mobile Sys.	SMR SMR	Purchase	SMR	Nextel will acquire a majority interest in American, a SMR operating in the Southeast
47	1/93 Altel Mobile Comm. Contel Cellular	Cellular Cellular	Purchase	Cellular	Altel is purchasing Contel Cellular of Arkansas in exchange for Altel's 10% interest in Cleveland.
48	3/93 GTE Telecom Services Digital Equipment	Cellular Computer	Joint Development	Cellular	Joint development of a cellular fraud detection system. Knowledge based systems will detect "clone" fraud.
49	6/93 Apple Computer Ameritech BellSouth US WEST	Computer RBOC RBOC RBOC	Development	Cellular	Apple has agreed separately to work with the listed RBOCs to develop services and products for the Newton personal assistant. Ameritech-fax and voice messaging; BellSouth-home banking & other services; US West-screen phone based services.
50	8/93 Fujitsu Personal Sys. Proxin Sulcus Hospitality	Manufacturing Manufacturing Software	Joint Development	Wireless LAN	Develop wireless LAN packages for Fujitsu's PocketPad Plus pen-based computer using Proxin spread spectrum transceiver & including use of Sulcus' Squirrel Restaurant Management Sys.

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Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
51 10/93	Motorola Telular Corp.	Manufacturing Manufacturing	Investment	Wireless	Motorola acquired 18% interest in Telular which has patented technology allowing CPE to be operated over wireless networks
52 10/93	McCaw Cellular Pac Tel Cellular	Cellular Cellular	Joint Venture	Cellular	Joined both companies properties in San Francisco, Dallas, San Jose, and Kansas City into a joint venture.
53 11/93	GTE Mobilnet BellSouth Mobility	Cellular Cellular	Alliance	Cellular	Both companies will link systems in Florida (Tampa/Ft. Myers and South Florida) to provide seamless coverage.
54 11/93	SWB Syracuse Telephone Utica Telephone	RBOC LEC LEC	Purchase	Cellular	SWB is purchasing 3 cellular systems from the other LECs in upstate New York covering 1.8 M POPs.
55 12/93	Anderson Group Inc. Centennial Cellular	Conglomerate Cellular	Purchase	Cellular	Centennial is buying Anderson's property in North Carolina for \$5 million and \$10.7 Million in common stock
56 12/93	GTE Mobilnet SWB	Cellular RBOC	Purchase	Cellular	SWB exercised its option to buy 10% in D/FW cellular license after GTE originally agreed to sell to Alltel
57 9/93	BellSouth Motorola	RBOC Manufacturing	Trial	Cellular/Page	BellSouth and Motorola announced a trial in Houston, of the MicroTAC RSVP™, a combined cellular phone and pager.
58 11/93	BellSouth IBM	RBOC Computer	Marketing	Cellular	BellSouth has an exclusive nationwide agreement for distributing IBM's Simon personal assistant.
59 11/93	Vanguard Cellular Geotek Industries	Cellular EMSR	Strategic Alliance	Cellular	Vanguard will purchase up to 20% of Geotek, owner of FHMA technology (frequency hopping) and hopeful EMSR participant.
60 1/94	Nextel Nippon Tel & Telegraph	ESMR Communications	Strategic Alliance	Cellular	Nippon is investing \$75 million for 1% of Nextel. NTT will assist Nextel with technology and operations expertise.
61 2/94	Century Telephone Celutel Inc.	LEC/Cellular Cellular	Purchase	Cellular	Century is purchasing Celutel's system in metro areas of Texas and Mississippi. Purchase will add 1 million POPs to Century.
62 3/94	MCI Nextel Comcast	Long Distance ESMR CATV/Cellular	Investment	Cellular	Comcast & MCI are purchasing 17% each of Nextel providing MCI access to 95% of the POPs in the US. Investment made to help give MCI a head start in the PCS market.
63 2/94	SWB	RBOC	Purchase	Cellular	SWB purchased Associated's domestic cellular business in

## WIRELESS

Date	Company Associated Comm.	Co. Type Cellular	Nature of Venture	Business Purpose	Venture Objective
					upstate NY and minority interest in Pittsburgh.
64	3/94 Nextel Clearnet Motorola Canada	ESMR ESMR Manufacturer	Strategic Alliance	Cellular	Clearnet and Motorola would combine their SMR network under the Clearnet name. Nextel will obtain a minority interest in Clearnet from the acquisition of Motorola SMR operations.
65	3/94 Microsoft McCaw Cellular Teledesic Corp.	Software Cellular Satellite	Joint Venture	LEO	Low Earth Orbit satellite system requiring 840 satellites for carrying voice, data, and video. System is designed for fixed location broadband uplink.
66	8/93 LOCATE SW Bell	CAP RBOC	Purchase	Paging	LOCATE purchased SW Bell Metromedia Paging sub serving 1.1 M in 31 markets. SW Bell will act as agent of LOCATE in Texas.
67	10/93 US WEST Westlink	RBOC Paging	Purchase	Paging	US WEST will sell its paging assets to Westlink who is run by US WEST Paging former president.
68	1/94 DA Systems BellSouth MobileCom	Paging Cellular	Partnership	Messaging	Provide wireless messaging for EMail, telex, and X.400 networks among others.
69	3/94 Microsoft Mtel	Software Paging	Joint Venture	Wireless Data	Microsoft will provide software for a Mtel built wireless data network. Work with laptops, PDAs, & alphanumeric pagers.

# OTHER VENTURES

Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
1	Blockbuster IBM Digital	Entertainment Computer Computer	Customer Vendor Vendor	Entertainment	"Music on Demand" concept with centralized digital music data base used to customized CDs.
2	2/93 Time Warner Inc. Sony Corp. Digital Cable Radio	Entertainment Mfg./Entertainment Radio	Investment	Entertainment	Time Warner and Sony Software Corp. have invested in Digital Cable Radio which provides radio with compact disc quality over CATV systems.
3	8/93 Silicon Graphics Nintendo	Graphic Workstation Entertainment	Joint Development	Entertainment	Work together to develop a 64-bit video game player.
4	9/93 Crystal Dynamics King World Prod. Home Box Office	Video Games TV Distribution Movie Channel	Investment	Entertainment	King World (Wheel of Fortune; Jeopardy; Oprah) and HBO each purchased 10% stake in Crystal, an up coming interactive video game producer. Currently making games for 3DO system.
5	11/92 US WEST Bell Atlantic AT&T	RBOC RBOC Telecom	Joint Test	ISDN	Technical test of video telephony over ISDN. 100 New Jersey Bell customers will be paired with 100 Arizona and Colorado customers and use an AT&T videophone & long distance service.
6	8/92 Bell Atlantic Ascend Communications Gandolf Systems Hitachi America Sun Microsystems Unifi Communications	RBOC Software LAN Video conference Computer Software	Marketing Partnerships	ISDN Bandwidth-on-Demand Videoconferencing Integrate ISDN Automatic Call Distribution Remote LAN	Bell Atlantic signed a series of joint marketing agreements to stimulate the introduction of ISDN applications. Bell Atlantic's network will be 50% ISDN capable by year end 1992. The vendors will be supplying applications to operate on Bell Atlantic's ISDN network platform.
7	GTE Telops AG CS Bellcore NEC AT&T VoicePlax Texas Instruments	LEC Switch Vendor Research Computer Communications Voice Messaging Semiconductor	Joint Development	AIN	Cooperative effort to develop the AIN platform and applications in the GTE IN test bed project being conducted in Carrollton, TX and Tampa, FL..
8	Bell Atlantic Stentor	RBOC LEC	Joint Development	AIN	Agreed to cooperate in development of Advanced Network Intelligence services. Stentor also licensing software from Bellcore.
9	7/93 Ameritech	RBOC	Joint Development	AIN	Teaming to provide next generation AIN services such as



# OTHER VENTURES

Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
	Hewlett-Packard DGM&S	Computer Software			message broadcast. Will include advanced call management & control, using HP's Apollo workstations and DGM&S software.
10 3/93	Northern Telecom Tandem Computer	Switch Vendor Computer	Joint Venture	AIN Services	Joint development & marketing agreement for telecommunications systems with IN capability
11 12/92	Time-Warner MCI First Pacific Network	CATV Long Distance Technology	Joint Test	Alternate Access	50 TW customers in Queens will test long distance calls service via MCI by totally bypassing the originating LEC network. 1st Pacific developed the distributed digital-switch technology.
12 7/92	Continental Cable Hyperion	CATV CAP	Joint Operation	Alternate Access	Jointly operate a fiber facility in Jacksonville Florida using existing and yet-to-be deployed fiber (Continental Fiber Tech)
13 3/92	Jones Cablevision Thurston Group Ltd.	CATV Banking	Joint Venture	Alternate Access	CAP facilities constructed in Denver, Miami, Chicago & Atlanta under Jones Lightwave name
14 7/88	Time-Warner General Comm.	CATV	Joint Venture	Alternate Access	Joint venture in a CAP in Indianapolis operating as Indiana Digital Access
15 6/93	Time Warner VisionCable	CATV CATV	Joint Venture	Alternate Access	Two companies will enter joint venture to form a CAP network in Charlotte, NC.
16 8/93	CFW Communications Shenandoah Telephone R&B Comm.	LEC LEC LEC	Joint Venture	Alternate Access	Formed Virginia Metrotel to provide non-switched intrastate, interLATA toll access services in C&P operating territory, primarily in Richmond.
17 12/90	WestMarc Communications General Communicatons	CATV	Joint Venture	Alternate Access	Joint venture to provide CAP services in Everett and Tacoma under name of GCI FiberNet
18 6/93	Teleport Communicatons Hyperion Telecommunications. Maclean Hunter Cable Times Mirror CATV Viacom Cable Cablevision Indust. Crown Media InterMedia Partners	CAP CATV CATV CATV CATV CATV CATV CATV	Joint Provision	Fiber Network	Teleport plans to team with cable companies to provide voice and data transmission services over fiber optic networks. The partners will give Teleport access to their fiber networks & rely on CATV partners for expertise in building new networks. Teleport will not transport CATV over their network. Teleport will manage the construction, operation and sales of the network

## OTHER VENTURES

Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
19	4/92 AlterNet of Virginia Hyperion Telecommunications	CAP CAP	Joint Venture	Alternate Access	CAPs owned by CATV concerns teaming to provide intrastate interLATA service in the Richmond area.
20	12/92 Indiana Digital Access Penn Access	CAP CAP	Purchase	Alternate Access	Indiana Digital Access, a Time Warner Joint Venture sub, is purchasing Penn Access, a CAP operating in Pittsburgh
21	12/92 MFS Communication Boston Fiber Optic	CAP CAP	Purchase	Alternate Access	MFS purchased Boston Fiber Optic and their 10 mile fiber facility linking Boston, Cambridge, the Back Bay and Beacon Hill
22	5/93 Time Warner Metro-Com.	CATV/Entertainment CAP	Purchase	Alternate Access	TW purchased 50% of Metro-Com., a Columbus, Ohio CAP
23	7/93 Teleport Denver PrivaCom Inc.	CAP CAP	Purchase	Alternate Access	The Denver based CAP purchased Charlotte NC based PrivaCom for \$5 million in cash.
24	7/93 Kiewit Sons Inc. C-Tec Corp	CAP Communications	Purchase	Alternate Access	MFS's parent purchased the diversified C-Tec which owns LEC, CATV, cellular and long distance properties.
25	11/93 MFS Communications MWR Fiber Communications	CAP CAP	Merger	Alternate Access	MFS and MWR will merger their St. Louis operations with MFS retaining an 80% stake in the venture.
26	11/93 Time Warner Comm. Hyperion Telecommunications	CATV/CAP CATV/CAP	Joint Venture	Support Services	Formed a joint venture to provide support services for both firms CAP business, incl. marketing, billing, accounting, etc.
27	9/93 Teleport Denver Ohio LINX	CAP CAP	Purchase	Alternate Access	Teleport Denver purchase Ohio LINX who operates in Dayton, Ohio. Expansion plans include Cincinnati & Lexington, KY.
28	11/93 Teleport Denver Bay Area Teleport	CAP CAP	Purchase	Alternate Access	Teleport Denver will acquire Bay Area Teleport, a digital microwave-based CAP which serves five CA. cities
29	11/93 Bell Atlantic Teleport	RBOC CAP	Strat Alliance	Alternate Access	BA will provide SONET ring facilities in NJ & connect to Teleport's portion of the ring in New York City.
30	1/94 Greenstar Communications Pacwest Network Inc.	CAP CAP	Partnership	CAP	Form a 60/40 partnership to develop and operate CAP networks in the US and abroad.
31	8/93 Greenstar Communications IntelCom Group	CAP CAP	Joint Venture	CAP	IntelCom(Formerly Teleport Denver) and Greenstar jointly building a CAP network in Phoenix

# OTHER VENTURES

Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
32	3/94 MFS Fibernet	CAP CAP	Purchase	Alternate Access	MFS purchased FiberNet's CAP networks in upstate New York. FiberNet operated 420 route miles of fiber in 3 cities.
33	3/94 Teleport Detroit CATV Cos.	CAP CATV	Joint Venture	Alternate Access	Teleport with Detroit area CATV companies will carry long-distance access traffic generated by businesses.
34	1/94 Jones Lightwave Internet Comm. Corp.	CAP Engineering design	Strategic Alliance	Alternate Access	Jones will provide the fiber to Internet's clients and Internet will provide network management & monitoring services.
35	MCI Amer Mobile Tel Ass.	IXC Industry Assoc.	Joint Marketing	Mobile & Long Distance	SMR operators will be encouraged to use MCI for long distance communications
36	12/92 MCI Octel Communications	IXC Vendor	Marketing Alliance	Long Distance Equipment	Octel's voice information processing equipment will be sold at discount to MCI 800 users
37	1/93 AT&T Unitel	Telecom Canada Long Dist.	Investment	Long Distance	AT&T purchasing 20% interest in Unitel. 40% of Unitel is owned by Rogers Communication a CATV and Cellular carrier
38	Sprint Corp Call-Net Inc.	Communications Long Distance	Investment	Long Distance	Sprint invested in a 25% equity stake in the Canadian long distance reseller. Call-Net will pay royalties for Sprint products.
39	LCI Smart Talk Network	Long Distance Long Distance	Strategic Alliance	Long Distance	LCI will provide debt financing to the Canadian reseller to help form a seamless trans-border network.
40	9/92 MCI Stentor	Long Distance LEC/Long Dist	Strategic Alliance	Long Distance	Two parties agreed to a seamless 800 service between the US & Canada so that calls can be originated and terminated seamlessly
41	6/93 MCI British Telecom	Long Distance Communications	Investment	Global Communications	BT will invest \$3.5 billion for 25% of MCI. MCI will develop W Hemisphere network while BT will develop Europe & Asia
42	6/93 MCI British Telecom	Long Distance Communications	Joint Venture	Enhanced Network	Each will invest \$1 B in venture to combine their international enhanced voice & data networks including BT's Syncoordia.
43	12/92 LDDS Advanced Telecom	Long Distance Long Distance	Purchase	Long Distance	LDDS purchase of ATC forms the 4th largest US based IXC with 13% market share. Plan to enter Latin American market.
44	12/92 Rochester Tel Corp.	LEC	Purchase	Long Distance	Rochester purchased Mid Atlantic, and IXC that serves Maryland,

# OTHER VENTURES

Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
	Mid Atlantic Telecom	IXC			Washington DC, Penn, New Jersey & New York City
45 9/93	LDDS Comm. Metromedia Comm. Resurgens Comm.	Long Distance Long Distance Long Distance	Merger	Long Distance	The three long distance companies will combine and be named LDDS-Metro Communications & become the 4th largest long distance carrier.
46 10/93	WCT Communications Telecom Solutions	Long Distance Long Distance	Purchase	Long Distance	World Call purchased San Francisco based TCS to expand its long distance network.
47 3/94	LDDS Comm. ACC Corp.	Long Distance Long Distance	Merger	Long Distance	Merger allows LDDS, fourth largest Long Distance carrier to enter Canadian and UK markets
48 4/92	AT&T AMEX	Telecom Finance	Joint Development	Billing	AMEX will bill and collect for AT&T
49	US West Anderson Consulting	RBOC Consulting	Joint Marketing	Billing Systems	Joint marketing of a modular provisioning and billing system called Integrated Access Billing System designed by both firms
50	Hewlett-Packard NEC	Computer Computer	Joint Venture	System Management	Joint venture 60% owned by Ericsson will manage the telephone systems of large corporations
51 12/92	AT&T Lawrence Livermore	Telecommunications R&D	Joint Development	Data	Signed 3 year agreement to develop ATM based high-speed data network. Livermore Lab is being funded by Dept. of Energy
52 1/93	AT&T Novell	Communications LAN Software	Joint Development	Data/Voice	Product to link business phone systems with computer networks. Can combine conference call with information in computer ntwrk
53 8/92	Sears IBM	Retailer Computer	Joint Venture	Data/Voice	Combining value-added-network operations in company called Advantis. Will provide voice, data, network integration
54 3/93	AT&T Digital Equip. Corp. M.I.T.	Communications Computer University	Joint Development	Data	Developing optical based network that will eliminate conversions from computer generated electrical impulses into optical impulses to allow several 10 gigabit channels on one fiber strand
55	DARPA Bellcore Columbia Univ. Northern Telecom Hewlett Packard	Government Research University Switch Vendor Computers	Consortium	Broadband	Research consortium tabbed Optical Networks Technology Consortium (ONTC) to develop an experimental, all optical, multi-wavelength telecommunications network to test various new network concepts an emerging technologies. ONTC will be led by Bellcore.

# OTHER VENTURES

Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
	Lawrence Livermore Hughes Aircraft Rockwell International United Technologies	Research Manufacturing Manufacturing Manufacturing			
56	2/93 AMR Info. Service Northern Telecom Racal-Datcom	Info Management Switch Vendor Data Products	Joint Marketing	Data Network	AMRIS (American Airline affiliate) will joint market with Northern Telecom and Racal-Datcom in an agreement that will refer customers to each other.
57	2/93 Sprint Alcatel N.V.	Communications Manufacturing	Joint Venture	Data	Venture to develop manufacture and market packet, frame relay & ATM systems. Venture 51% owned by Alcatel.
58	12/92 Pacific Bell Digital Link Corp.	RBOC Vendor	Joint Marketing	Data	Jointly market Pac Bell service and Digital Link's SMDS equipment including T-1, T-3 SMDS access units.
59	9/93 EDS AT&T	Computer Communications	Strategic Alliance	AIN	EDS is developing intelligent network applications of AT&T's A-I-Net, the first of which is Fax-on-Demand.
60	9/94 AT&T Pacific Bell Southwestern Bell	Communications RBOC RBOC	Joint Test	Bandwidth-on-Demand	The three have teamed to test bandwidth on demand on a per call basis. Speeds in 64 Kbs increments up to 1.635 Mbs.
61	8/93 Pacific Bell Intel	RBOC Semiconductors	Joint Development	PC Integrate	Will integrate new audio, video and data applications for PC users to allow desktop video conferencing.
62	11/93 GTE Northern Telecom	Communications Switch Vendor	Strategic Alliance	Government Communications	Companies will jointly pursue Gov't communications contracts. NT will provide hardware & software, GTE management & engineering
63	10/93 Sprint MN. Supercomputer	Communications Supercomputer	Marketing Services	Supercomputer	Venture to allow any business to use supercomputer via Sprint's ATM based high speed network
64	3/94 Pac Tel Intel	RBOC Semiconductors	Resale Agreement	ISDN	Intel will resell and package Pac Tel ISDN service with their desktop video conferencing equipment.
65	3/94 AT&T Lotus Development	Communications Software	Strategic Alliance	Data	AT&T Network Notes allows dial-up access for users of Notes for wide area connectivity without the cost of a dedicated network.
66	4/92 DEC	Computer	Customer -	Telecommute	Connecting DEC headquarters with residential area

					OTHER VENTURES
Date	Company	Co. Type	Nature of Venture	Business Purpose	Venture Objective
	Cablevision Systems	CATV	Vendor		with Ethernet data connections
67 2/93	Pacific Bell Bizmart	RBOC Retailer	Joint Marketing	Comm.	Pac Bell is setting up a Kiosk in a Bizmart in Citrus Heights CA. to attempt closer contact with small business.
68 1/93	Bell Atlantic Northern Telecom	RBOC Switch Vendor	Partnership	PBX Marketing	The two companies formed a partnership to sell and service private telecommunications system in mid-Atlantic region.
69 2/93	Sprint Corporation Bellcore	Communications Research	Consortium	Research	Sprint will join Bellcore and share in Bellcore research product for an undisclosed amount of cash.
70	Sprint Centel	Communications Communications	Purchase	Communications	Sprint purchased Centel in a tax free stock swap. First combination of Long Distance, Local and Cellular
71 1/93	Alltel Sugar Land Tel	LEC LEC	Purchase	Communications	Alltel is purchasing Sugar Land in a stock swap.
72 11/93	MCI Jones Intercable Scientific Atlanta	Long Distance CATV Convert. Manufacturer	Joint Test	Local via CATV	Testing delivery of long distance service via CATV system in Virginia, and local and long distance via CATV in Chicago. MCI said the test will be rolled out commercially.
73 1/93	AT&T Cisco Systems Strata-Com	Communications Manufacturer Manufacturer	Standards Development	Switch Production	Will jointly develop standards for ATM equipment. AT&T for high capacity ATM switch, State-Com for smaller ATM switches & Cisco for routers. Will work with Frame Relay and SMDS.
74 11/92	AT&T Mitsubishi Electric	Communications Consumer Electronics	Joint Development	Uncool Laser	AT&T Microelectronics and Mitsubishi agreed to jointly develop 1300 nanometer "uncooled" lasers for use optical networks.



**ATTACHMENT C**  
**CAPS OPERATING IN GTE TERRITORY**



**CAPS OPERATING IN GTE TERRITORY**

COMPETITOR	CITIES SERVICED		SERVICES OFFERED		FIBER MILES	
	EXIST	PLAN-MO/YR	EXIST	PLAN-MO/YR	EXIST	PLAN-MO/YR
Interstate Fibernet	Pell City, AL Leeds, AL	N/A	Carrier's Carrier DS-1's DS-3's	N/A	290 mile regional fiber optic network	N/A
Intermedia Comm., Inc. (ICI)	Tampa, FL St. Petersburg, FL Lakeland, FL	Sarasota, FL	ATM Frame relay SMDS Bandwidth Videoteleconferencing LAN interconnection + interoperability dedicated WATS DS-0 DS-1 DS-3 channelized hi-cap Fractional T-1	N/A	Total: (12/93) Route miles 335 Fiber Miles 10,239	N/A